



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/690,656	10/22/2003	Ahti Muhonen	041933/269768	5860
826	7590	02/05/2007		
ALSTON & BIRD LLP BANK OF AMERICA PLAZA 101 SOUTH TRYON STREET, SUITE 4000 CHARLOTTE, NC 28280-4000			EXAMINER DAILEY, THOMAS J	
			ART UNIT 2152	PAPER NUMBER

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/05/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/690,656	MUHONEN ET AL.	
	Examiner	Art Unit	
	Thomas J. Dailey	2152	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 22 October 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-38 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>23 March 2005</u>   | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. Claims 1-38 are pending in this application.

#### ***Claim Objections***

2. Claim 1 is objected to because of the following informalities: on line 3, "astatus" is recited. It should recite, "a status." Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 8-10, 12-18, and 24-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
5. Claim 8 recites on lines 3-4, "the network entity *can* control the storage of content in memory of the terminal." This is not particularly pointing out and distinctly claiming the invention due to the fact that this also covers instances when control of memory is not based upon the status and in effect is not clearly claiming control. The claim will be interpreted for the remainder of this office action as, "the network entity *controls*..."

6. Claim 12 recites on lines 7-8, "the at least one piece on content in memory *can be controlled* based upon the status." This is not particularly pointing out and distinctly claiming the invention due to the fact that this also covers instances when control of memory is not based upon the status and in effect is not clearly claiming control. The claim will be interpreted for the remainder of this office action as "*is controlled based upon the status.*"
7. Claim 13 recites on line 4, "the controller *can delete* at least one piece of content." This is not particularly pointing out and distinctly claiming the invention due to the fact that is not clearly defining when deletion occurs. The claim will be interpreted for the remainder of this office action as, "the controller *deletes...*"
8. Claim 24 recites the limitation "the at least one piece" in line 5. There is insufficient antecedent basis for this limitation in the claim. It could be references either the "one piece of content," in line 2 or the "on piece on content," on line 3.
9. Claims 8-10, 14-18, and 25 are rejected due to their dependence on the previously rejected claims.

***Claim Rejections - 35 USC § 102***

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

11. Claims 12-13, 17-20, 24, 26-27, 29-30, 34, and 36-37 are rejected under 35

U.S.C. 102(e) as being anticipated by Aubault (US Pub. No. 2005/0056318).

12. As to claim 12, Aubault discloses a terminal (Fig. 2, label 2) for controlling

storage of content in memory, the terminal comprising:

a memory capable of storing at least one piece of content ([0033] the cache (memory) of the client (terminal) stores objects (content)), wherein each piece of content is associated with at least one parameter including at least one of a client expiration time and a deletion priority value ([0076]-[0077], relevance criterion reads on “a deletion priority value”, in that the object with the lowest relevance criterion will be the first to be deleted); and

a controller capable of sending a status of the at least one piece of content stored in memory ([0053]-[0054], the client (terminal) inherently responds to the state requests with state information (status), furthermore, this occurs during the initialization phase [0054], as initial display information (initial status) is transmitted from the client (terminal) to the server) such that storage of the at least one piece of content in memory can be controlled based upon the status

and the at least one parameter ([0074]-[0077], client (terminal) receives new object and it is stored or discarded (controlled) based upon relevance criterion).

13. As to claim 13, Aubault discloses the memory is capable of storing the at least one piece of content such that it can be determined if the memory has sufficient storage capacity for at least one subsequent piece of content ([0075]), and if the memory does not have sufficient storage capacity ([0076]), the controller can delete at least one piece of content based upon the deletion priority value of each piece of content stored in memory ([0076]-[0078], relevance criterion reads on "a deletion priority value", in that the object with the lowest relevance criterion will be the first to be deleted).

14. As to claim 17, Aubault discloses the controller is capable of associating each piece of content stored in the memory with at least one parameter ([0076]).

15. As to claim 18, Aubault discloses the controller is capable of setting a deletion priority value for at least one piece of content ([0079]).

16. As to claim 24, Aubault discloses receiving at least one piece of content at a network entity ([0032]); and sending at least one piece of content to the terminal such that the terminal receives, and thereafter stores, the at least one piece of content ([0032]).

17. As to claims 19 and 29, they are rejected by the same rationale set forth in claim 12's rejection.

18. As to claims 20 and 30, they are rejected by the same rationale set forth in claim 13's rejection.

19. As to claims 26 and 36, they are rejected by the same rationale set forth in claim 17's rejection.

20. As to claims 27 and 37, they are rejected by the same rationale set forth in claim 18's rejection.

21. As to claim 34, they are rejected by the same rationale set forth in claim 24's rejection.

***Claim Rejections - 35 USC § 103***

22. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

23. Claims 1,2, 8-11, 28, and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aubault (US Pub. No. 2005/0056318) in view of Deo et al. (US Pat. 6,157,982), hereafter "Deo."

24. As to claim 1, Aubault discloses a system of controlling storage of content in memory (Abstract), the system comprising:

a network entity (Fig. 2, label 3) comprising an expiration control application capable of receiving a status of a at least one piece of content stored in memory of a terminal ([0033], the server (network entity) stores the list of objects (content) and their associated statuses [0040] of the cache (memory) of the client (terminal)), wherein each piece of content is associated with at least one parameter including at least one of a client expiration time and a deletion priority value ([0076], relevance criterion reads on "a deletion priority value"), and wherein controlling storage of content in memory of the terminal based upon the status and the at least one associated parameter ([0077]).

Aubault does not disclose where the network entity is directly capable of controlling the storage of content in the memory of the terminal. Aubault's server (the network entity) only controls the storage of content indirectly by determining what objects (content) to send to the client (terminal). The client (terminal) then controls what is placed in memory.

However, Deo discloses a network entity that controls the storage of content in the memory of a terminal (column 3, lines 8-25, an external computer (a network entity) remotely manages memory on a portable information device (terminal)).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Aubault and Deo in order to decrease the processing burden of a terminal that has less processing power available than a computer it is networked with (Deo, column 2, line 65-column 3, line 4).

25. As to claim 8, Aubault discloses a terminal capable of sending the status of at least one piece of content stored in memory of the terminal (column 7, 54-58) such that the network entity can control the storage of content in memory of the terminal (column 7, lines 59-63).

26. As to claim 11, Aubault discloses the network entity is capable of associating each piece of content stored in memory of the terminal with at least one parameter ([0046]).

27. As to claim 28, Aubault discloses its parent claims (19 and 26) and further discloses associating each piece of content comprises associating each piece of

content stored in memory of the terminal with at least one parameter at a network entity ([0033], the server (network entity) stores the list of objects (content) and their associated statuses [0040] of the cache (memory) of the client (terminal)).

Aubault does not disclose that the network entity is capable of controlling storage of content in memory of the terminal.

However, Deo discloses a network entity that controls the storage of content in the memory of a terminal (column 3, lines 8-25, an external computer (a network entity) remotely manages memory on a portable information device (terminal)).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Aubault and Deo in order to decrease the processing burden of a terminal that has less processing power available than a computer it is networked with (Deo, column 2, line 65-column 3, line 4).

28. As to claim 2, they are rejected by the same rationale set forth in claim 13's rejection above.

29. As to claim 9, they are rejected by the same rationale set forth in claim 17's rejection above.

30. As to claim 10, they are rejected by the same rationale set forth in claim 18's rejection above.

31. As to claim 38, they are rejected by the same rationale set forth in claim 28's rejection.

32. Claims 14-16, 21-23, 25, 31-33, and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aubault, as applied to claims 12, 19, and 29, in view of Bereznyi et al. (US Pat. 6,449,695), hereafter "Bereznyi."

33. As to claim 14, Aubault discloses the parent claims (12 and 13) and further discloses the controller is capable of sending a status of the at least one piece of content ([0054]), and wherein the controller is capable of deleting a piece of content ([0077]).

Aubault does not disclose sending the status of the at least one piece of content such that at least one piece of content can be determined to have an exceeded client expiration time, and wherein the controller is capable of deleting a piece of content having a highest deletion priority value from the at least one piece of content having an exceeded client expiration time.

Bereznyi discloses sending the status of the at least one piece of content such that at least one piece of content can be determined to have an exceeded client expiration time (Fig. 6, labels 216 and 218 and column 11, lines 44-51) and wherein the controller is capable of deleting a piece of content having a highest deletion priority value from the at least one piece of content having an exceeded client expiration time (Fig. 6, label 222).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Aubault and Bereznyi in order to give Aubault's system more flexibility in how it manages the terminal's memory.

34. As to claim 15, Aubault discloses the controller is capable of repeatedly deleting a piece of content having a highest deletion priority value until memory of the terminal has sufficient storage capacity for the at least one subsequent piece of content ([0074]-[0077]).

Aubault does not disclose repeatedly identifying and deleting each piece of content having an exceeded client expiration time.

Bereznyi discloses repeatedly identifying and deleting each piece of content having an exceeded client expiration time (Fig. 6, labels 216, 218, and 222 and

this is done repeatedly by the fact that the after label 222, the flow chart progresses to Fig. 7, which in turn returns to right before label 204 of Fig. 6).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Aubault and Bereznyi in order to give Aubault's system more flexibility in how it manages the terminal's memory.

35. As to claim 16, Aubault discloses the memory does not have sufficient storage capacity for at least one subsequent piece of content and each piece of content having an exceeded client expiration time has been identified and deleted (see claim 15 rejection), the controller is capable of deleting at least one piece of content having a highest deletion priority value from at least one piece of content remaining in memory of the terminal ([0074]-[0077]).

36. As to claim 25, Aubault discloses the parent claims (19 and 24) but does not disclose the at least one parameter further includes a server expiration time, and wherein the method further comprises:

monitoring the server expiration time of the at least one piece of content in memory of the network entity to determine if at least one piece of content has an exceeded server expiration time; and if at least one piece of content has an exceeded server expiration time,

Art Unit: 2152

deleting the at least one piece of content having an expired server expiration time.

Bereznyi discloses at least one parameter further includes a server expiration time (column 11, lines 44-51), and wherein the method further comprises:

monitoring the server expiration time of the at least one piece of content in memory of the network entity to determine if at least one piece of content has an exceeded server expiration time (Fig. 6, label 218); and

if at least one piece of content has an exceeded server expiration time, deleting the at least one piece of content having an expired server expiration time (Fig. 6, label 222).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Aubault and Bereznyi in order to give Aubault's system more flexibility in how it manages the terminal's memory.

37. As to claims 21, 31 and 35, they are rejected by the same rationale set forth in claim 14's rejection.

38. As to claims 22 and 32, they are rejected by the same rationale set forth in claim 15's rejection.

39. Claims 3-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aubault in view of Deo as applied to claim 1, in view further view of Bereznyi.

40. As to claim 3, Aubault discloses the expiration control application is capable of identifying a piece of content having a highest deletion priority value ([0076]) and instructing the terminal to delete the identified piece of content ([0077]).

Aubault and Deo do not disclose the expiration control application is capable of determining at least one piece of content having an exceeded client expiration time, and instructing the terminal to delete the identified piece of content.

Bereznyi discloses an expiration control application (column 11, lines 44-51) is capable of determining at least one piece of content having an exceeded client expiration time (Fig. 6, label 218), and instructing the terminal to delete the identified piece of content (Fig. 6, label 222).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Aubault and Deo with the teaching of Bereznyi in order to give the system more flexibility in how it manages the terminal's memory.

41. As to claim 4, Bereznyi discloses the expiration control application is capable of repeatedly identifying a piece of content, and instructing the terminal to delete the

identified piece of content (Fig. 6, labels 216, 218, and 222 and this is done repeatedly by the fact that the after label 222, the flow chart progresses to Fig. 7, which in turn returns to right before label 204 of Fig. 6), until one of memory of the terminal has sufficient storage capacity for the at least one subsequent piece of content (column 11, lines 33-37), and each piece of content having an exceeded client expiration time has been identified and deleted (column 11, lines 44-51).

42. As to claim 5, Aubault discloses when memory of the terminal does not have sufficient storage capacity for at least one subsequent piece of content and each piece of content having an exceeded client expiration time has been identified and deleted (see claim 4 rejection), the expiration control application is further capable of identifying at least one piece of content having a highest deletion priority value from at least one piece of content remaining in memory of the terminal, and instructing the terminal to delete the identified at least one piece of content ([0074]-[0077]).

43. As to claim 6, Aubault and Deo do not disclose the network entity is capable of storing at least one piece of content, wherein the at least one parameter further includes a server expiration time, and wherein the network entity is capable of sending at least one piece of content to the terminal.

Bereznyi discloses a network entity is capable of storing at least one piece of content, wherein the at least one parameter further includes a server expiration time (column 11, lines 44-51 and Fig. 6, label 218), and wherein the network entity is capable of sending at least one piece of content to the terminal (column 3, lines 56-66).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Aubault and Deo with the teaching of Bereznyi in order to give the system more flexibility in how it manages the terminal's memory.

44. As to claim 7, Bereznyi discloses the expiration control application is further capable of monitoring the server expiration time of the at least one piece of content in memory of the network entity to determine if at least one piece of content has an exceeded server expiration time (Fig. 6, label 218), and if at least one piece of content has an exceeded server expiration time, instructing the network entity to delete the at least one piece of content having an expired server expiration time (Fig. 6, label 222).

### ***Conclusion***


45. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas J. Dailey whose telephone number is

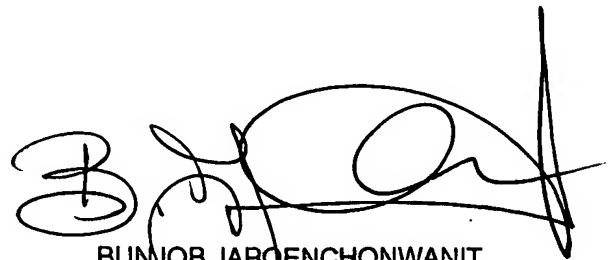
Art Unit: 2152

571-270-1246. The examiner can normally be reached on Monday thru Friday;  
9:00am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the  
examiner's supervisor, Bunjob Jaroenchonwanit can be reached on 571-272-  
3913. The fax phone number for the organization where this application or  
proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from  
the Patent Application Information Retrieval (PAIR) system. Status information  
for published applications may be obtained from either Private PAIR or Public  
PAIR. Status information for unpublished applications is available through  
Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR  
system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-  
free). If you would like assistance from a USPTO Customer Service  
Representative or access to the automated information system, call 800-786-  
9199 (IN USA OR CANADA) or 571-272-1000.

  
TJD  
1/31/2007

  
BUNJOB JAROENCHONWANIT  
SUPERVISORY PATENT EXAMINER